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CALIFORNIA

TREES AND FLOWERS.

Descriptions of the Wild Flowers, Ornamental Trees and Shrubs, Ferns, Lilies and Cacti, with other information.

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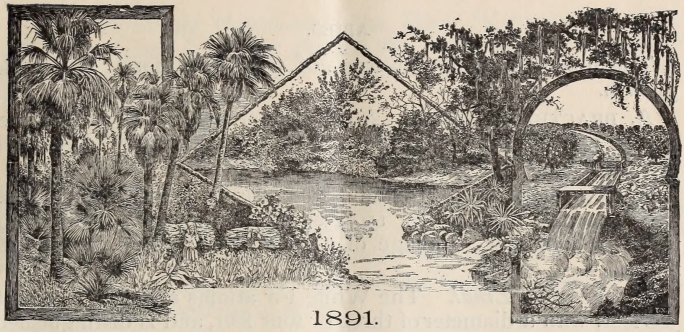
CALIFORNIA

TREES AND FLOWERS.

ROMNEYA COULTERI.



1891.

CALIFORNIA TREES AND FLOWERS.

'In all parts of the civilized world, the refinement, innocence and happiness of the people may be measured by the flowers they cultivate,' says an eloquent author. I would add, that the wild flowers of a country must furnish a truthful index to the adaptability of that land as a home for the human race, for, where they abound, there too man may seek for fruitful toil, pleasure and rest.

Where may lovelier flowers, more brilliant tints, or more delicate coloring be found in greater profusion than on the mountains and mesas, in canyon and meadow, throughout the length and breadth of California! And where may a more perfect abiding place be found for man!

It is to the beautiful annuals which in springtime cover the hills and mesas, that California owes her just fame as a land of flowers. Perhaps in no country in the world do the early spring flowers so change the face of the earth from a desolate waste to a beautiful garden, as on the Pacific coast—hills, mesas, mountains and valleys, and the arid plains of the desert, alike, quickly responding to the vivifying rain. California has probably already furnished to the horticulturist a greater variety of beautiful flowers and stately trees than any other State in the Union. Yet many others are awaiting the appreciation of man, or wasting their sweetness on the desert air.

In this essay it is intended to give brief descriptions of those already introduced into cultivation, with reference to the varieties produced by cultivation, together with notes on many that are well worthy of introduction. A few trees and plants, not natives of California, but now closely identified with our flora, either by cultivation or naturalization, are also noticed.

*) An asterisk indicates that the colors have been carefully determined by comparison with Ridgway's 'Nomenclature of Colors.'

ABIES.

The firs are magnificent trees, of pyramidal form and rapid growth.

A. BRACTEATA *Nuttall.* A tall, slender, strictly pyramidal tree, 100 to 150 feet high and one to two feet in diameter. Unknown in cultivation.

A. CONCOLOR *Lindl.* The Silver Fir is a very ornamental tree, growing from 80 to 150 feet high, attaining a diameter of three or four feet. Foliage of a pale silvery green, whence its name.

A. GRANDIS *Lindl.* The White Fir attains a height of 200 to 300 feet, with a diameter of three or four feet, and is distinguished by the glossy, green upper surface of the leaves.

A. MAGNIFICA *Murray.* The Red Fir exceeds 200 feet in height, and reaches a diameter of ten feet. Foliage rigid, bark thick of a reddish brown color, from which it receives its vernacular name in common with the following species.

A. NOBILIS *Lindl.* Red Fir, scarcely distinguishable from the preceding species.

ABRONIA.

The Abronias are charming trailing plants, sometimes called wild verbenas from the resemblance between the verbena and their showy umbels of brilliant flowers, which are of great fragrance, and produced abundantly.

A. LATIFOLIA *Eschscholtz.* Waxy lemon yellow flowers, possessing the odor of orange blossoms. A hardy annual in cultivation, perennial in its wild state, like the following species.

A. UMBELLATA *Lam.* The finest species, producing a profusion of large umbels of bright rose-purple flowers.*

A. VILLOSA *Watson.* A slightly smaller plant, but producing equally large umbels of bright rose-purple flowers.*

ABUTILON.

The Abutilons are highly prized green-house plants, of elegant habit. California offers one of the most beautiful species, as yet unknown in cultivation.

A. AURANTIACUM *Watson.* A low compact shrub, a foot high, with large, velvety, light green leaves and showy 'golden flowers.' Found near the southern border of the state, in Lower California.

ACACIA.

Several Australian species of Acacia have been extensively grown in California, either for their beauty or utility. Only one species is a native, and that, A. Greggii, or Cat's Claw, cannot be recommended for trial. These are mostly small trees or shrubs of rapid growth.

A DECURRENS *Wildenow.* The Black Wattle is one of the most prized, and is largely planted for forest culture, because of its rapid growth, the value of its timber, its beauty and the bark which is rich in tannin.

A. DEALBATA *Link.* Silver Wattle. Very ornamental.

A. FARNESIANA *Wildenow.* Oppopanax is prized for its delicate, delicious and wonderfully persistent perfume, for which it is often grown. It is valued for other reasons, and is of especial historic interest, since it is credited with having furnished the crown of thorns with which the Savior was crowned.

A. MELONOXYLON. Make one of the finest of sidewalk trees, sturdy and symmetrical in form.

A. PYCNANTHA *Bentham.* The Golden Wattle is second only to A. decurrens in importance for its yield of tanner's bark.

ACANTHOMINTHA.

A. ILICIFOLIA *Gray.* A showy mint-like annual, abundant on the mesas near San Diego, and well worth attention. A span high, with white flowers marked with purple.

ACTINOLEPIS.

A. CORONARIA *Gray.* A low annual bearing numerous yellow flowers.

ADENOSTOMA.

Evergreen shrubs, belonging to the rose family, two to ten feet high, which produce an effect upon the landscape similar to that of the heaths of the Old World. By studying the natural blending and contrasts of our wild shrubs and trees in their native haunts, the landscape artist could gather some useful hints, and the species of this genus would prove useful in his work.

A. FASCICULATUM *Hook r & Arn.* This *Chamisal* often covers large areas of country so densely as to be almost inpenetrable. The foliage is very dark green.

A. SPARSIFOLIUM *Torrey.* Foliage light pea green; flowers in large terminal panicles, white and fragrant.

AGAVE.

The so-called Century Plants are among the best known of the succulent ornamental plants that are in cultivation. California furnishes several beautiful species.

A. DESERTI *Engelmann.* A glaucous-leaved species, peculiar to the Colorado Desert. Flower stalk seven to ten feet high, surmounted with a large panicle of flowers of a chrome yellow.* These plants, also known as Mescal or Maguey, from which the alcoholic liquor *mescal* is made, are useful for their strong fibre.

A. PRINGLEI *Engelmann.* A mountain form of A. deserti, rare and beautiful.

A. SHAWII *Engelmann.* One of the most striking and ornamental species of the genus, prized for its compact dark green leaves.

A. PARRYI *Engelmann.* Native of Arizona, as also the following species.

A. PALMERI *Engelmann.*

A. SCHOTTI *Engelmann.*

ALFILARIA.

Erodium cicutarium and E. moschatum are about equally well known by the name Alfilaria, and are valuable forage plants. The foliage is finely divided like a fern leaf, and the rose-purple* flowers are half an inch across. The two generally grow together so that the seed is generally mixed. A considerable demand has sprung up, and Alfilaria is being extensively sown in arid localities for forage

ALLIUM

A large genus, including the onion of the vegetable garden. Some of the wild forms native to California are very pretty, but mostly with small flowers and worthless for cutting. Interesting garden plants.

A. ACUMINATUM *Hook.* Usually a low plant, six inches high, with a good sized umbel of pretty rose-purple flowers.

A. CUSICKI *Watson.* A dwarf vernal form, with white flowers commonly tinged with purple.

A FALCIFOLIUM *Hook & Arn.* Flowers rose colored.

A FIMBRIATUM *Watson.* A pretty plant, abundant in the mountains of Southern and Lower California, bordering the Colorado Desert. It sends up a stout scape a few inches high,—rarely more than three inches—bearing twenty-five or thirty flowers of a deep rose purple*, sometimes of a light shade. Its Mexican name is *Lavina.*

A. HAEMATOCHITON *Watson.* A small species, six or eight inches high, bearing an umbel of six to twelve small white flowers with greenish stripes and a reddish brown centre. It is a tender plant.

A SERRATUM *Watson.* A showy little plant, about ten inches high, with a naked stem and a many-flowered umbel of dark, bright rose-purple* flowers half an inch wide.

A. UNIFOLIUM *Kell.* A unique little species, with white to rose-purple flowers. Three inches to a foot high.

ANTIRRHINUM.

A. ORCUTTIANUM *Gray.* A tall, slender annual, with long spikes of either white or violet flowers, discovered in 1882. Perhaps the prettiest of the wild Snapdragons of California.

AQUILEGIA.

Graceful perennial plants, hardy and very ornamental. Columbine.

A. CAERULEA *James*. Two feet high, with large showy blue or white flowers.

A. CAERULEA FLORE PLENO. Double flowers.

A. CHRYSANTHA. A fine species, with long yellow spurred flowers. The most graceful and beautiful for cultivation.

A. TRUNCATA *F. & M.* The form in cultivation is a hybrid, with large yellow flowers, the sepals and spurs of a deep orange red.

ARBUTUS.

A. MENZIESII *Pursh.* The Madroña is a handsome tree, some times a hundred feet high, with reddish bark and lovely white flowers.

ARCTOSTAPHYLOS.

The Manzanitas are handsome shrubs, with reddish exfoliating bark, evergreen—usually light colored—foliage, and lovely clusters of bell-shaped snow-white or rosy blossoms, which often appear even before the snow is off the ground. If these could be coaxed into the same graceful habits of growing under man's care as obtain with them in their wild state, they would be among the most popular of the ornamental shrubs of the Pacific Coast.

A. BICOLOR *Gray*. A coast species, a few feet high.

A. GLAUCA *Lindl.* A fine but variable mountain form.

A. MANZANITA *Parry*. The *Manzanita*, one of the largest and most beautiful species, peculiar to the Pacific Coast.

A. OPPOSITIFOLIA *Parry*. A willow-leaved species from Lower California.

A. PRINGLEI *Parry*. A peculiar mountain form. Very beautiful.

A. UVA-URSI *Spreng*. Bear berry.

ARGEMONE.

A. HISPIDA *Gray*. Thistle Poppy A stout prickly annual three to six feet high, producing numerous large, showy, white flowers, four to five inches in diameter, almost rivaling the Romneya in beauty, and conspicous by night or day. Foliage bright green. A very decorative plant, recommended for large grounds.

A. MEXICANA *L.* Flowers yellow. Otherwise similar.

ASTER.

A beautiful perennial species, a foot high, with large conspicuous flowers, two inches across, and of a delicate mauve or lavender, has lately been discovered on the Colorado Desert. It is likely to prove an acquisition to horticulture.

BAERIA.

The Baerias (named in honor of Prof. Baer of the University of Dorpat) are very pretty annuals, of easy culture in ordinary soil.

B. GRACILIS *Gray.* A span or more high, producing many small heads of small, yellow flowers.

BLOOMERIA.

Bloomeria is a genus of beautiful liliaceous plants related to Brodiæa, and peculiar to California.

B. AUREA *Kellogg.* The broad glossy leaf three or four feet long. The large bulb, an inch in diameter, grows six inches deep in the soil, producing a tall scape bearing a large umbel of showy orange colored flowers.

B. CLEVELANDI *Watson.* A smaller plant, seldom over six inches high, with umbels of bright yellow flowers. Named in honor of Mr. D. Cleveland, of San Diego.

BREVOORTIA.

B COCCINEA *Watson.* Vegetable Firecracker. A showy plant, producing a tall grass-like stem two to three feet high, bearing a pendant umbel of richly colored flowers, blood crimson tipped with white, one to three inches in length.

BRODIÆA.

The Brodiæas have narrow grass-like leaves and slender stems bearing an umbel of bright colored flowers. All are easily grown and forced, doing well in clayey, rather moist soils, but should be dried off at time of blooming.

I.—BRODIÆA.

B. CAPITATA *Benth.* Flower stalks slender, a foot high, bearing a dense head of purple flowers. Sometimes called Wild Hyacinth.

B. CAPITATA ALBA. A pure white form, prized in cultivation.

B CONGESTA *Smith.* Two to four feet high, with deeper, brilliant purple flowers

B. MULTIFLORA *Benth.* Low, six inches high, bulb producing several slender stalks, bearing umbels of purple flowers.

II.—HOOKERA.

The following species are considered by some botanists to form a distinct genus named Hookera.

H. GRANDIFLORA *Smith.* Produces a few very large glossy purple flowers.

H. MINOR *Watson.* Bears a loose, spreading umbel of large royal purple flowers from a short stem. A general favorite.

H. ORCUTTII *Greene*. A foot or two high, with large lavender to royal purple flowers, discovered in 1882. One of the choicest species.

H. STELLARIS *Greene*. Flowers rich purple with white center, in a star-like cluster.

H. TERRESTRIS *Kellogg*. Flowers red-purple.

III.—TRITELEIA

The following species are included by Prof. Greene in the genus Triteleia, but they are best known in cultivation under the old classification.

T. HYACINTHINA *Greene*. Flowers milky white, banded with green.

T. IXIOIDES *Watson*. Low, bearing numerous light yellow flowers banded with green. Very pretty

T. LAXA *Benth*. Tall, with umbel of 15 to 30 large blue flowers.

T. PEDUNCULARIS *Lindl*. Flowers glossy purple on long stems. Rare.

CALANDRINIA.

C. MENZIESII *Hook*. A low, succulent annual, very variable, with pretty red or purple flowers.

C. MENZIESII ALBA. Flowers pure white.

C. ROSEA. A form in cultivation, presumed to have originated in California.

CALOCHORTUS.

I.—MARIPOSA TULIPS.

These Tulips, excepting the true lilies, are the finest of the beautiful liliaceous plants of the Pacific Coast. The Mariposa or Butterfly Tulips are highly recommended for winter flowering and are gaining great popularity in the East and in Europe. Each species varies greatly in color, and the erect, cup-like flowers are of large size, and of the richest and most brilliant coloring. The stout, slender flower stalks vary from eight inches to two or three feet in height, each bearing from a few to fifteen or twenty flowers.

C. AUREUS *Watson*. Three to six inches high, flowers clear yellow, or with a narrow crescent of purple above the well-defined roundish gland, which is densely covered with reflexed hairs.

C. GUNNISONI *Watson*. Petals light lilac, yellowish green below the middle, banded and lined with purple.

C KENNEDYI *Porter*. A rare species only known in the Mojave Desert where it is very difficult of access. The large flowers two inches across, of a deep orange vermilion,* produced on short stout scapes. *A magnificent species*

CALOCHORTUS.

C. LUTEUS *Dougl.* Plant low, with clear lemon yellow flowers.

C. MACROCARPUS *Dougl.* Stout and tall, the lilac flowers banded with purple.

C. NUTTALLII *T. & G.* Tall, flowers large, of a creamy whiteness, banded with green on the back of the petals. A strong growing plant.

C. LEICHTLINII *Hook.* A low mountain form of the last.

C. PALMERI *Watson.* Rose purple flowers, with maroon purple spots at base of petals.*

C SPLENDENS *Dougl.* Lustrous rose purple, with often a maroon purple spot at base of petal*. Greatly admired.

C. VENUSTUS *Benth.* Regarding this species, considerable confusion exists relative to the nomenclature of the numerous beautiful varieties. The following are the leading varieties known in cultivation, the first being considered the type of the species.

1—Roseus. Creamy white inside, with rose-colored blotch at top of petal, a beautiful tinted eye in center, and silky gland at base; rich carmine on back. A perfect gem.

2—Citrinus. Citron yellow.

3—Oculatus. White inside, with richly colored eye-like spots.

4—Purpurascens. Rich purplish lilac, with eye-like spots.

C. WEEDII *Wood.* This is one of the finest of the Mariposa Tulips, two or three feet high, producing several large and brilliant orange yellow flowers, delicately dotted with brown and covered with silky hairs. Peculiar to Southern California.

II.—STAR TULIPS.

The Celestial or Star Tulips differ from the Mariposa Tulips in the slender drooping stems, bearing many bell-shaped or globular flowers. A single long glossy leaf is characteristic of both sections of the genus.

C. ALBUS *Dougl.* A strong growing plant, with pearly white globular flowers. often an inch in diameter, lined with silky hairs. Very beautiful.

C. BENTHAMII *Baker.* Bearing two to six delicate nearly erect open bells, yellow, lined with silky hairs.

C. FLEXUOSUS *Watson.* Petals clear lilac.

C. LILACINUS *Kell.* Erect cup-shaped flowers, light lilac.

C. MAWEANUS *Leichtlin.* Delicate open bells, white lined with silky blue hairs.

C. NITIDUS *Dougl.* A foot high, white or purplish flowers.

C. NUDUS *Watson.* Low and often slender, white or pale lilac. wholly without hairs

C. PULCHELLUS *Dougl.* One of the hardiest and most beautiful species, resembling C. albus, but with rich yellow flowers.

C. UNIFLORUS *H. & A.* Large white flowers.

CALYCANTHUS.

C. OCCIDENTALIS *H. & A.* Sweet-scented shrub. An erect shrub, ten feet high, dark green foliage and purplish-red or white flowers. Deciduous.

CAMASSIA.

The Camass furnished to the Californian aborigine one of his most valued articles of food, and to the white man it contributes a handsome flower. The Camassias are perfectly hardy in the eastern states. They thrive best in a porous soil.

C. CUSICKII *Watson.* The flowers of this species, borne in a long raceme, when first expanded are white, changing to pale blue after they have been open a few days. Nearly a yard high at maturity; bulbs large. 'Finest of the genus.'

C. ESCULENTA *Lindl.* The Indian Kamass grows from ten to twenty inches high, has long grass-like leaves, and bears a loose spike of violet-blue flowers, five inches long. The flowers are an inch or more wide, ten to twenty in a spike. and useful for cutting.

CARPENTERIA.

C. CALIFORNICA *Torrey.* An ornamental shrub related to the syringa, with fragrant white flowers.

CASTILLEIA.

C. AFFINIS *H. & A.* Painter's brush. A stout annual one to three feet high, abundant along moist banks of streams in Southern California, where the yellowish flowers tipped with red, in a leafy spike, and with bright red floral bracts, renders the plant very striking and conspicuous.

C. FOLIOLOSA *H. & A.* A perennial, one or two feet high, shrubby at base, clothed with a matted white wool. The inconspicuous yellowish or red tipped flowers outshone by the brilliant red of the floral bracts. Flourishes on dry hillsides.

CEANOTHUS.

The Wild Lilacs of the Pacific Coast are in endless variety. They are mostly graceful evergreen shrubs or small trees, bearing dense showy racemes of either blue or white flowers.

C. HIRSUTUS *Nuttall.* This is one of the most graceful of our Californian shrubs, with glossy foliage and bearing a profusion of campanula-blue flowers which fade to flax-flower and pearl blue.*

C. DIVARICATUS *Nutt.* Pale glaucous leaves, and light blue to white flowers. Very ornamental.

C. INTEGERRIMUS *H. & A.* Bears large open terminal racemes of white fragrant flowers.

C. ORCUTTII *Parry.* Flowers unknown. Native of the high mountains, of San Diego county.

C. THYRSIFLORUS *Esch.* Sometimes a small tree, with bright blue flowers. One of the best known in cultivation.

CEREUS.

Cereus includes over 200 species of the most beautiful cacti, the most of them producing an abundance of brilliant colored or exquisitely tinted flowers. Some are delicate trailing plants, others are erect and rigid, in the giant cactus attaining a height of sixty feet. Many of the species are beautiful and curious in themselves, not needing to blossom to repay the attention bestowed upon them.

C. EMORYI *Engelm.* The Velvet Cactus is a cylindrical species covered with slender yellow spines, when young so soft and flexible as to suggest its popular name. The flowers are greenish yellow, not showy. In the United States only found near San Diego.

C. ENGELMANNI *Parry.* One of the most beautiful of the Cushion Cacti, with long white or rich brown spines, growing in clusters of few to many cylindrical heads a few inches tall, and bearing numerous large and bright magenta colored flowers. The fruit is edible, an inch in diameter, possessing the flavor of the strawberry.

C. GIGANTEUS *Engelm.* The Giant Cactus is the largest species known. Attains to a height of sixty feet, bearing large flowers and edible fruit.

CHAENACTIS.

C. ARTEMISIAEFOLIA *Grav.* A viscid-pubescent annual, one to five feet tall, bushy, with white or flesh-colored heads of composite flowers, an inch in diameter.

C. TENUIFOLIA *Nuttall.* An erect or decumbent annual, a span to a foot high with composite heads of flowers an inch across, of a lemon yellow approaching orange in the center * A coarse but rather showy plant, like the preceding, remaining long in flower.

CHAMAECYPARIS.

C. LAWSONIANA *Parlat.* The Lawson Cypress is one of the most beautiful of the many native trees of the Pacific Coast, and is highly valued for its ornamental qualities. It sometimes attain a height of 150 feet.

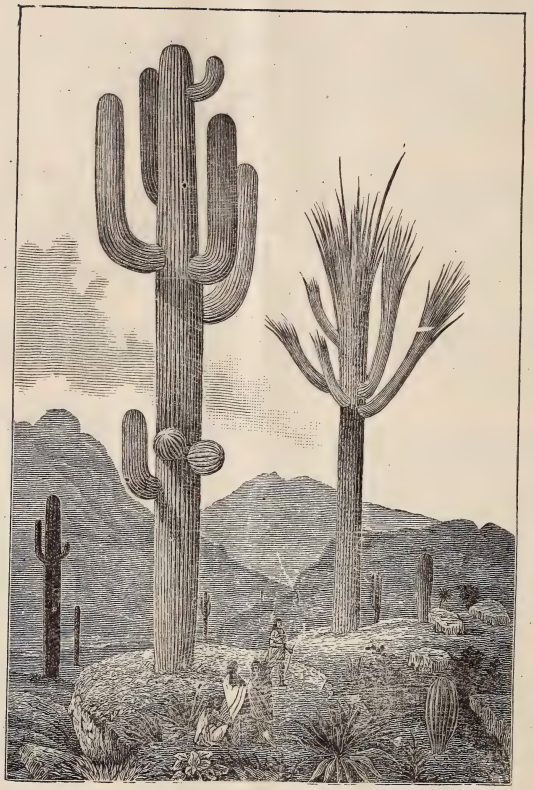
CHILOPSIS.

C. SALIGNA *Don.* The Desert Willow is a graceful willow-like shrub, related to the Catalpa, with showy white flowers two inches long, veined with purple.

CHLOROGALUM.

C. ANGUSTIFOLIUM *Kellogg.* Flowers white with yellowish-green lines.

C. PARVIFLORUM *Watson.* Flowering stems from six inches to six feet tall. Flowers not showy.



THE GIANT CACTUS.

(*Cereus giganteus.*)

C. POMERIDIANUM *Kunth.* The common Soap plant or *Amole* produces a large, spreading panicle of rather inconspicuous white purplish-veined flowers from an immense fibrous-coated bulb which is sometimes used as a substitute for soap.

CLARKIA.

C. ELEGANS *Dougl.* A showy, profuse flowering annual, six inches to several feet high, of rich purple and other colors. The following varieties have been produced by cultivation.

1—Alba. With pure white flowers.
2—Alba flore pleno. Double white flowers.
3—Rosea. Rose-colored flowers.
4—Rosea flore pleno. Double rose-colored flowers.

CLAYTONIA.

C. PERFOLIATA *Don.* A succulent annual, with small white or rose-colored flowers. In England it is considered very fine for salad, while in California it is known as Spanish Lettuce.

COBAEA.

C. SCANDENS *Cav.* A Mexican climber of the phlox family, highly valued as a rapid grower and for its large bell-shaped flowers, of an apple green color when first opened, changing to lavender and violet and finally to a rich prune purple.* A tall climber.

COLLINSIA

Tender annuals, commonly two-colored in their wild state, very pretty.

C. BARTSIAEFOLIA *Benth.* Purplish or pale violet flowers.

C. BARTSIAEFOLIA ALBA. A cultivated white variety, rarely found wild.

C. BICOLOR *Benth.* The most showy species, with purple and white flowers, three-quarters of an inch long, in large whorls. The following are the leading cultivated varieties.

1.—Alba. Lovely white whorls.
2.—Atrorubens. A pretty purplish-red variety.
3.—Candidissima. A very pretty dwarf white form.
4.—Carnea.
5.—Rosea.

COLLOMIA.

C. GRANDIFLORA *Dougl.* An erect annual related to the Gilias, a foot or two high with large showy salmon-colored flowers.

CUPRESSUS.

The California species of Cypress are among the most widely planted of evergreen trees or shrubs, and are very ornamental. The Monterey Cypress is especially useful for hedges. (The Lawson Cypress belongs to the genus Chamaecyparis.)

C. GOVENIANA *Gordan.* Usually a low bushy shrub or tree.

C. GUADALUPENSIS *Watson.* The Blue Cypress is one of the most ornamental species in the genus. Tall and graceful with fine glaucous foliage, and of a dense compact growth.

C. MACNABIANA *Murr.* A graceful little tree, rarely over ten feet high.

C. MACROCARPA *Hartw.* The Monterey Cypress. Said to resemble the Cedar of Lebanon in habit, with dense far-spreading branches.

DARLINGTONIA.

DARLINGTONIA.

D. CALIFORNICA *Torrey.* A striking perennial plant of curious aspect. Of greenish yellow hue, bearing a nodding purplish flower. One of the Pitcher plants, noted for its alluring insects to their destruction.

DATURA.

D. METELOIDES *DC.* A rank growing plant, with large white flowers delicately shaded with violet. Very handsome in cultivation, but a common weed in California.

DELPHINIUM.

The larkspurs scarcely need an introduction, so many species having met with kindly reception. California, however, has the honor of having contributed several of the finest species yet introduced into general cultivation.

D. CARDINALE *Hook.* A stout perennial, five to seven feet tall, producing magnificent panicles of bright, handsome scarlet flowers with a yellowish center. Quite hardy.

D. DECORUM *F. & M.* A foot high, with a long spike of brilliant indigo blue flowers. Very fine.

D. NUDICAULE *T. & G.* Flowers in spikes a foot long, light scarlet to crimson.

DICENTRA.

Glabrous perennials, usually showy, with pinnately divided leaves and racemes or panicles of brilliant flowers.

D. CHRYSANTHA *H. & A.* A most generous plant, continuously in bloom from May until October. The small rich lemon yellow* flowers borne in a terminal panicle a foot or two long; the plant two to four feet high, very effective for grouping in borders; the finely divided foliage resembling some ferns, of a very pale bluish-green and very beautiful. Roots easily transplanted in the fall or winter, or the plant may be grown from seed. Grows wild on dry hills, but thrives in rich garden soil.

DODECATHEON.

The Giant Cyclamen, Dodecatheon Clevelandi, is one of the most charming of the many lovely spring flowers of Southern California. Every child in springtime is sure to gather large handfuls of the fragrant flowers, and each has some pretty name for them such as Rabbit-ears, Shooting-stars, or Mad Violets. The flowering stem is usually a foot high, bearing an umbel of six to twenty-five of the large brilliant flowers. The center of the flower is of a rich prune purple bordered with bright lemon yellow, the reflexed divisions of the corolla pure white or tipped with lavender or phlox purple. Several varieties have been introduced as follows.

D. CLEVELANDI *Greene.* As above described, with lavender colored divisions of the corolla. The varieties:

1—Alba. Divisions of a pure white.

2—Splendens. Divisions of a deep brilliant phlox purple.

ECHINOCACTUS.

This genus includes over 200 species of depressed-globose or cylindrical cacti, some of very large size. They are remarkable for their beauty and symmetry of growth, armed with strong spines as a rule.

E. CYLINDRACEUS *Engelm.* Noted for its beautiful flexuous spines, frequently of an ivory whiteness. I have measured one plant that exceeded ten feet in height, and nearly two feet in diameter. Usually under three feet high. Flowers two inches across, of a clear lemon yellow.*

E. EMORYI *Engelm.* Dull red spines and flowers.

E. LECONTEI *Engelm.* Spines of a silvery grey color usually.

E. POLYCEPHALUS *Engelm.* A rare desert species. Very distinct from all others.

E. ORCUTTII *Engelm.* A fine cylindrical form found in Lower California.

E. VIRIDESCENS *Nutt.* A depressed-globose plant, common near San Diego. Known as the Turk's head cactus.

E. WISLIZENI *Engelm.* The Giant Fish-hook cactus; the typical form occurs in New Mexico.

ERYTHEA.

A genus of beautiful palms peculiar to California, related to the genus Brahea, with which it has been sometimes included. The leaves are fan-shaped, without filaments. The fruit is edible, with seeds as large as marbles.

E. ARMATA *Watson.* The Blue palm, with bluish-white leaves for which it ranks high among the ornamental palms.

E. EDULIS *Watson.* A larger tree, of more rapid growth, and foliage of a dark green. Considered one of the most desirable of palms.

ERYTHRAEA.

The Canchalaguas are elegant annuals, a span to a foot high, producing a multitude of bright flowers. The following is the largest and handsomest species in the genus.

E. VENUSTA *Gray*. Flowers an inch across, rotate, with slender tube forming a center of delicate sulphur yellow, the usually five divisions of the corolla of a deep solferino, more rarely lavender or white.* Foliage and stems of light apple green.

ERYTHRONIUM.

The Dog-tooth Violets are distinctively American, with the exception of a single species that is a native of Europe and Asia. The greatest variety of forms thrive in their nativity on the Pacific Coast. They are beautiful lily-like flowers, highly prized in cultivation. They grow in shady places in rock and leaf mold as a rule. The following are the names by which the principal varieties are known in cultivation.

E. CITRINUM. A variety from Oregon.

E. GRANDIFLORUM. The leaves are broad and richly mottled in brown, green and white, with delicate straw-colored flowers, recurved like a lily.

E. GRANDIFLORUM ALBIFLORUM. This sends up from long, narrow corms, broad leaves, conspicuously blotched with purple, and tall, slender racemes of two to six nodding, lily-like, long-pedicelled flowers, which, when fully expanded, are nearly three inches across. The segments are pale yellow, dashed with orange towards the base, with darker orange spots on the interior face.

E. GIGANTEUM. Flowers pure white. Considerable confusion exists in the nomenclature of these plants, which only careful comparisons can straighten. This, E. albiflorum and E. Smithii, are all mere varieties of E. grandiflorum doubtless, and probably indistinguishable from the above variety.

E. HENDERSONI. Described as the handsomest species of the genus, with bright and strongly colored flowers which are very striking and attractive in their beauty. The petals have a very dark purple and somewhat blotched center, which is surrounded by a band of yellow, and beyond this they are pale purple.

E. HOWELLII. Light cream-colored flowers slightly tinged with red, with a yellow center. Discovered in Oregon by Mr. Thomas Howell, for whom it is named. An interesting species that has been found to thrive in New England in a loamy soil in open sunlight.

E. SMITHII. Flowers described as pure white on opening, often changing to purple.

ESCHSCHOLTZIA.

The Golden Eschscholtzia has aided in no small degree in making California famous as a land of sunny flowers, and has very fitly been selected as the state flower of California. In its wild state it often covers thousands of acres of hill or plain with its intensely brilliant and richly colored flowers, which in the bright sunlight are perfectly dazzling. Some botanists recognize more than a dozen species in this genus. The leading varieties in cultivation are known under the following names.

E. CALIFORNICA *Cham.* Flowers large, varying from deep orange to sulphur yellow or even white. The horticultural varieties are:—

1.—Alba. Pure white.

2.—Alba flore pleno. Double white. Very choice and beautiful.

3.—Aurantiaca.

4.—Compacta.

5.—Crocea. Bright yellow.

6.—Crocea flore pleno. Double yellow, new.

7.—Crocea striata.

8.—Dentata aurantiaca.

9.—Dentata sulphurea.

10.—Mandarin. Described as a new and very beautiful variety, of a rich orange or crimson backed with brilliant mandarin scarlet.

11.—Rosea. Very delicate rose color.

12.—Rosea flore pleno.

13.—Rose Cardinal. Bright rose to deep carmine, very pretty and remaining in bloom a long time.

14.—Tenuifolia.

EUCALYPTUS.

The Australian Gum trees are so thoroughly at home in California, and so extensively grown, as to almost be considered characteristic of the state. The more popular species are the following.

E. AMYGDALINA. The Giant Gum.

E. CORYNOCALYX *Mueller.* The Sugar Gum.

E. GLOBULUS *La Billardiere.* The Blue Gum, which is more extensively planted than all the others together.

E. LEUCOXYLON *Mueller.* The Iron-bark tree.

E. ROSTRATA *Schl.* The Red Gum, now coming into general favor.

FOUQUIERA.

F. SPLENDENS *Engelm.* The Candlewood, or *Hocotillo* of the Mexicans, is a curious, cactus-like plant, five to ten feet high, bearing terminal spikes or racemes of flaming scarlet flowers. It is characteristic of the desert regions, where it blossoms out whenever a shower occurs.

FRASERA.

F. PARRYI *Torrey*. A curious biennial, with a rotate 4-parted white corolla, dotted minutely with prune purple, and with an apple green spot on each division * Flowers nearly an inch across, in a panicle borne on a stout stem one to four feet high.

FRAXINUS.

F. DIPETALA *H. & A.* Flowering Ash, a small shrub found in Lower California, producing in springtime a profusion of lovely white or flesh-colored flowers. A very ornamental shrub.

FREMONTIA.

A beautiful hardy deciduous shrub or small tree, named in honor of the late Gen. Fremont; bearing conspicuous bright yellow flowers, one to three inches across. But a single species in the genus.

F. CALIFORNICA *Torr.* Of graceful and symmetrical growth and greatly prized for its beauty. Thrives in a sandy loam.

FRITILLARIA.

The Fritillarias are all elegant in habit and among the most beautiful of the many members of the lily family. They have broad base leaves and strong leafy stems, bearing from a few to many flowers, like a spray of bells. The Crown Imperial and many other ornamental plants belong to the genus. The bulbs are light and easily sent by mail, and almost rival their flowers in beauty.

F. ATROPURPUREA *Nutt.* A foot high, growing in dry mountain soils, with dark purple, bell-shaped pendant flowers.

F. BIFLORA *Lindl.* The Chocolate Lily, as it is called by many of its younger admirers, is one of the finest species in a large genus of stately and handsome flowers. The strong leafy stem from a few inches to a foot tall, bearing from one to five large and beautiful deep claret brown campanulate flowers,* in a graceful cluster. Flower an inch long, slightly mottled with green.

F. LANCEOLATA *Pursh* A tall stately plant with curiously mottled greenish-yellow flowers.

F. LILIACEA *Lindl.* A beautiful low-growing plant with white flowers.

F. PUDICA *Sprengel.* Of low dwarf habit, four to five inches tall, with yellow flowers. Early spring.

F. RECURVA *Benth.* A graceful plant, from eight inches to two feet in height, with crimson or scarlet flowers, brilliant and of long duration, useful for cutting. One of the most attractive of Pacific Coast plants, blooms early in cultivation and is readily grown in a light, loamy soil.

GILIA.

Handsome, low growing, profuse blooming annuals, well known to every cultivator of flowers. The genus is peculiar to West America with a few exceptions. A few species perennial but not yet known in cultivation. The numerous varieties in cultivation mostly originated in California, of which the following are best known.

G. ACHILLEAEFOLIA *Benth.* Light blue clusters of flowers.

G. ACHILLEAEFOLIA ALBA. White variety.

G. BICOLOR.

G. CAPITATA *Dougl.* Delicate blue, in dense clusters

G. CAPITATA ALBA. White variety.

G. CAPITATA MAJOR.

GILIA DIANTHOIDES.

G. DIANTHOIDES *Endl* One of the most charming of Californian annuals, producing a profusion of brilliant rose-pink flowers which completely smother the little plant with loveliness. Flowers large, with a light yellow center. Plant seldom exceeds three inches in height, but forms a broad mat. A perfect gem

G. DIANTHOIDES ALBA A choice white variety of surpassing beauty.

G. LACINIATA.

G. LINIFLORA *Benth.* A finely branching plant, a foot or two high, with large white or pale blue flowers.

G. MINIMA CAERULEA. A dwarf form with lovely blue flowers

G. NIVALIS.

G. TRICOLOR *Benth.* Familiar in cultivation, with several horticultural varieties as follows:

1—Alba.
2—Rosea—splendens.
3—Rubro—violacea.

GODETIA.

G. QUADRIVULNERA *Spach.* A slender annual, with either white or bright phlox-purple flowers, quite showy, a foot or two high.

GREVILLEA.

G. ROBUSTA *Cunningham.* A beautiful tree for the lawn or street, indigenous to eastern Australia, but now extensively planted in California for its beauty. Of rapid growth and resisting drought in a remarkable degree. Grows to a height of 150 feet.

HESPEROCALLIS.

The Day Lily of the Desert is one of the most beautiful and characteristic plants of the desert regions of California. The

large edible bulb produces one or more flower stems which rise from one to two feet above the sand in which they grow, bearing from a few to thirty white fragrant flowers. A single species, H. undulata.

HETEROMELES.

H. ARBUTIFOLIA *Roemer*. The California Holly, or Christmas berry, is a handsome dark evergreen shrub, with white flowers and producing clusters of bright scarlet berries, which ripen at Christmas time.

JUNIPERUS.

J. CALIFORNICA *Carr*. Californian Juniper. A small shrub of ornamental value, common in Southern California.

J. OCCIDENTALIS *Hook*. These two are very similar in aspect.

LASTHENIA.

L. GLABRATA *Lindl*. A composite plant, a span to a foot high, producing a multitude of showy yellow flowers. Annual.

LATHYRUS.

L. SPLENDENS *Kellogg*. 'The Pride of California.' A splendid hardy perennial, producing a profusion of its large, brilliant rose red to crimson blossoms,* in clusters of ten or more. The most magnificent of the native climbing plants of West America.

L. VENOSUS *Muhl*. The flowers of this perennial pea are but a little smaller or less beautiful than the last, of a deep magenta. It has often been mistaken for L. splendens, but if once seen together they can always be recognized.

L. VESTITUS *Nutt*. Lovely white flowers, veined with rose.

LAYIA.

This genus was named in honor of Thomas Lay, the naturalist in Beechey's voyage. They are hardy annuals, thriving in any ordinary soil.

L. ELEGANS *T. & G*. The California Layia is a beautiful upright bushy plant, about a foot high, and producing in abundance brilliant lemon yellow* single flowers, two inches across, the tips of the rays forming often a scolloped white border. Showy.

LEPTOSYNE.

L. DOUGLASII *DC*. Easily mistaken for Layia elegans by those who are not botanists. Equally pretty but more modest and retiring.

L. MARITIMA *Gray*. A striking and showy plant, perennial, the succulent stems a foot or two high, producing large yellow flowers of great beauty, in abundance. Common on ocean beaches.

LIBOCEDRUS.

L. DECURRENS *Torr.* California White Cedar. A tall tree, conical in shape, in foliage and habit resembling Thuya gigantea.

LILIUM.

There are about fifty species of lilies in the world, California possessing eight handsome species, which are widely sought for their showy and often fragrant flowers. They are better known in European than in American gardens, but are worthy of greater attention in their native land.

L. WASHINGTONIANUM *Kellogg.* The Washington Lily is a tall, stately plant, with whorls of dark green leaves and many pure white fragrant flowers. A beautiful species, growing in loose soil on ridges or lightly shaded hillsides.

L. PARRYI *Watson.* This fine and exceedingly rare Lily, named in honor of the late Dr. C. C. Parry, produces lovely clusters of large and very fragrant flowers of a clear lemon yellow.

L. RUBESCENS *Watson.* A rare form resembling the Washington Lily, except in the color of its exceedingly fragrant flowers, which change from white to dark ruby red after opening.

L. PARVUM *Kellogg.* A low, slender, graceful plant, bearing from two to fifty or more bell-shaped flowers with light yellow centers dotted with brown, the petals tipped with scarlet or crimson,

L. MARITIMUM *Kellogg.* The Marine Lily resembles the last, small, with dark green foliage, and usually fewer deep crimson or blood-red flowers, dotted with black.

L. PARDALINUM *Kellogg.* Hardy and very handsome, prefering a rich moist soil; bearing large and brilliant crimson flowers, dotted with black and with a yellow center. A favorite.

L. HUMBOLDTII *R. & S.* Large and tall, stout, with orange, red flowers, spotted with brown. Thrives in dry open places. The Humboldt Lily is very stately and handsome.

L. COLUMBIANUM *Hanson.* A graceful miniature of the last.

LOBELIA.

L. SPLENDENS *Willd.* Two or three feet high, growing in moist situations, producing a many-flowered raceme of intense red blossoms.

LOESELIA.

L. TENUIFOLIA *Gray.* A showy plant, a span to a foot high, producing abundantly brilliant poppy-red or carmine flowers. Perennial.

L. EFFUSA *Gray.* An equally beautiful species of the mountains of Lower California, low in habit with light rose-purple flowers. Like Phlox and Gilia, Loeselia is a genus of lovely flowers, well worthy of cultivation.

LUPINUS.

Showy annuals or perennials, a few shrubby, bearing conspicuous flowers in terminal racemes. The great majority are indigenous to West America. Many have long been cultivated and grown popular. The California species best known in cultivation are the following:

L. AFFINIS *Agard.* A foot or two high, often growing very rank, producing large spikes of brilliant blue flowers.

L. DENSIFLORUS *Benth.* Less than a foot high, with white flowers arranged in umbel like clusters on the terminal spike. Sometime light sulphur yellow.

L. MICRANTHUS *Dougl.* Low in habit, with racemes of small light blue and white flowers. The cultivated form is considered quite pretty.

L. NANUS *Dougl.* A slender plant, with bluish, purple or white flowers.

L. NANUS ALBUS. The white flowered form.

L. ARBOREUS *Sims.* The Tree Lupin is a shrub four to ten feet high, with lilac colored flowers.

L. ARBOREUS LUTEUS. With sulphur yellow flowers, perhaps the typical form. A very ornamental shrub.

L. ELEGANS. What its name signifies.

L. GRANDIFLORUS. A perennial form, with blue, white or purple flowers.

L. POLYPHYLLUS *Lindl.* Perennial, similar to L. grandiflorus if the two are not identical or forms of the same species.

L. POLYPHYLLUS ALBIFLORUS. The white variety.

MAMILLARIA.

MAMILLARIA.

Very general favorites among the lovers of the odd or the beautiful are these unique little plants, most exquisite in form and finish. The scarlet edible berries, which cluster among the spines of our Californian cacti of this genus add also the beauty of these plants, though the blossoms are often inconspicuous.

M. DESERTI *Engelm.* A little gem, from the Mojave Desert, of which we have as yet seen but a single plant. One of the choicest of the genus and we hope to rediscover the beauty soon.

M. GOODRIDGII *Scheer.* Sometimes called the Strawberry cactus, from the delicious flavor of its clubshaped fruit, but also called the Fish-hook cactus from the hooked central spines pro-

duced from the mamillae. The spines are sometimes of an ivory whiteness, but oftener of a rich brown color.

M. PHELLOSPERMA *Engelm.* A handsome plant, worthy of a place in any lady's parlor.

MIMULUS.

M. CARDINALIS *Dougl.* A showy perennial species, with brilliant large scarlet flowers.

M. GLUTINOSUS *Wendl.* A low shrub, with bright evergreen foliage and a profusion of buff or salmon colored showy flowers.

M. MOSCHATUS *Dougl.* Musk. A low, musk-scented plant, bearing large lemon yellow flowers.

MONARDELLA.

A genus of many beautiful flowers, well worth extended cultivation, showy, often sweet scented, either perennial or annual.

M. MACRANTHA *Gray.* An evergreen species with dark glossy foliage, a span high, producing showy heads of orange-red flowers.

M. NANA *Gray.* Almost identical in habit and general aspect with the last, the flowers pure white, sometimes suffused with rose. Very beautiful but less showy than the last.

M. LANCEOLATA *Gray.* A showy annual, producing masses of bright phlox purple flowers, six to eight inches or a foot high, branching, with a strong but pleasant pennyroyal perfume, similar in aspect with numerous related forms, like M. Pringlei and many others, all of which are well worthy of a place in any garden.

NEMOPHILA.

Very pretty annuals, mostly Californian, with tender herbage and lovely flowers of delicate blue, violet or white colors.

N. AURITA *Linal.* Large violet flowers, one of the finest species introduced into cultivation.

N. AURITA ALBA *Dougl.* A beautiful white form.

N. INSIGNIS *Dougl.* Bright blue flowers an inch in diameter.

N. MACULATA *Benth.* White, with a strong violet blotch at the top of each lobe of the corolla. 'Love Grove.'

NICOTIANA.

N. GLAUCA *Graham.* A slender shrub, a native of South America, very light green foliage and yellow flowers, considered very striking and ornamental among the sub-tropical foliage plants. Naturalized in Southern California.

NOLINA.

Perennial liliaceous plants, with a thick woody trunk, in aspect somewhat resembling the Yucca. The stout flowering stem bears a panicle of numerous small creamy white flowers.

N. BIGELOVII, *Watson.* The flowering stem six to ten feet high, bearing a dense panicle. The plant sometimes grows ten or more feet high.

N. PALMERI, *Watson.* A cluster of these plants will cover a considerable area, and with the coarse, grass-like foliage may well be mistaken for a patch of some coarse species of grass at a distance. Less ornamental than the preceding.

ŒNOTHERA.

An almost exclusively American genus of over one hundred species, many with showy flowers, and some long in cultivation as ornamental.

Œ BIENNIS *L.* The Evening Primrose, with its large showy flowers, is too well known to need description.

Œ. BISTORTA *Nutt.* Showy yellow flowers, usually with a dark brown spot at base of each petal. A low decumbent annual, the variety Veitchiana being the form commonly seen in cultivation.

Œ. CALIFORNICA *Watson.* Low flowers, large white, becoming pinkish, fragrant. One of the loveliest and most delicate of flowers, often two or three inches across.

OPUNTIA.

The Tuna and the Prickly Pear are among the most prominent and characteristic plants of Southern California and Mexico, and while detested by many are really among the most useful of our indigenous or naturalized species. Their fruits formerly furnished the Indian with food the spiney branches served the Mexicans for fences, while to the cattleman their succulent stems may furnish food for his stock There are several hundred species known, many taking high rank as ornamental plants either from their oddity or beauty, but some species, like our chollas, are not desirable companions from their inveterate pugnaciousness. The Opuntias of California are briefly noted as follows.

I.—TUNA.

O. TUNA *Miller.* The Tuna of the Mexican was early introduced by the Spanish around the Californian missions. It is a picturesque plant, furnishing a delicious light green fruit, cool to the palate in the hottest day and very refreshing, from which choice jellies or liquors may be made, or even sugar manufactured.

O. TUNA-MANSE. A related form or variety with nearly globular orange fruit, blotched with red.

O. FICUS-INDICA, *Miller.* The Indian fig, the Tuna Colorado of the Mexicans, bears an egg shaped fruit, rather insipid to the taste, of a rich magenta color.

O. ENGELMANNI, *Salm.* The indigenous species, so familiar to all who have visited Southern California.

O. BASILARIS, *E. & B.* A low plant, seldom a foot high, with fascicles of very short and fine spines, but producing large and brilliant flowers of a magenta color. Highly valued for its beautiful blossoms and ornamental character.

II.—CHOLLA.

The Chollas are usually tall cylindrical plants, sometimes branching into tree-like forms and often covering large areas of country with dense, inpenetrable thickets. Curious in a way they are sparingly cultivated, but woe unto all who incautiously handle them!

O. BIGELOVII, *Engelm.* A beautiful species, with numerous fine straw colored spines, peculiar to the region of the Colorado Desert. Spines very penetrating and tenacious.

O. PROLIFERA, *Engelm.* The common Cholla so abundant and characteristic of the vicinity of San Diego. Flowers of a pomegranate purple.*

O. SERPENTINA, *Engelm.* Procumbent, with yellow flowers. There are numerous other varieties which it seems needless to mention.

ORTHOCARPUS.

A large genus of low, branching annuals, nearly related to Castilleia.

O. PURPURASCEUS *Benth.* An erect, diffusely branched annual, a span to a foot high, producing numerous dense and thick terminal oblong or cylindrical spikes of flowers. Corolla yellowish, tipped with crimson or red and the whole encircled by the brilliantly colored crimson-purple or rose-purple floral bracts. Hundreds of acres are often transformed into brilliant fields of purple by the abundance of this, one of the handsomest, of the spring annuals of California.

PAPAVER.

P. CALIFORNICA. *Gray.* While one of the latest discoveries, this plant ranks among the prettiest of our annuals, the fine bushy plant, a foot or more high, bearing large showy flowers of an average of two inches in diameter The color is a bright saturn red to orange chrome, with a center of delicate sulphur yellow.

PENTACHAETA.

P. AUREA *Nutt.* This small hardy annual, with its large golden yellow heads of almost double flowers, introduced into cultivation in 1884, is a pretty dwarf composite that may be readily grown.

PENTSTEMON.

Hardy perennial plants with showy panicles of brilliantly colored flowers. Several of the numerous Californian species have long been in cultivation.

P. CENTRANTHIFOLIUS *Benth.* A showy species, two or three feet high, bearing long slender spikes of bright carmine-colored flowers, an inch long. Acres in extent of our mountain lands are sometimes a solid mass of carmine during the summer when this handsome plant is in bloom. It was introduced in 1858.

P. CLEVELANDI *Gray.* One to three feet high, with dark green foliage and bearing a spike of lovely bright solferino-colored flowers each an inch long.

P. PALMERI *Gray.* A tall growing species, with a long panicle of large white flowers delicately veined with purple

P. SPECTABILIS *Thurber.* Corolla an inch long, broad, bluish-purple. Plant two or three feet high, glabrous. Flowers in a loose elongated panicle. A very showy species. This genus contains nearly a hundred species, nearly all worthy of cultivation, and many native to California.

PHACELIA.

P. CAMPANULARIA *Gray.* One of the finest species in the genus yet known in cultivation. Has received a first-class certificate in England where it was introduced a few years ago.

P. CONGESTA. A useful plant in bee-gardens, like the rest of the genus, and one of the best known species in cultivation.

P. TANACETIFOLIA *Benth.* The Tansy-leaf Phacelia has long been in favor in cultivation for its beautiful foliage. An erect hardy annual, one to three feet high, bearing cymosely clustered spikes of light bluish flowers.

P. TANACETIFOLIA ALBA. A fine cultivated variety, with white flowers.

P. ORCUTTIANA *Gray.* One to three feet high, branching, bearing a profusion of small white flowers with brilliant yellow centers.

P. PARRYI *Torr.* One of the loveliest and most desirable of the many pretty annuals of Southern California for cultivation, second only in value to P. campanularia. The plant delights in warm sunny exposures, and produces large brilliant royal purple flowers with an open rotate corolla. Everyone admires this modest flower, whose bright face looks out at one with something akin to a human expression.

P. WHITLAVIA *Gray.* Large bell-shaped blue flowers.

PICEA.

P. SITCHENSIS *Carr.* Probably the tallest spruce known, growing 150 to 200 feet high, and of pyramidal form. An excellent timber tree.

PINUS.

The pines are too well known to require more than brief notice. The species in California are as follows:

P. BALFOURIANA *Jeff.*
P. CONTORTA *Dougl.*
P. COULTERI *Don.*
P. INSIGNIS *Dougl.* Monterey pine.
P. JEFFREYI *Murr.*
P. LAMBERTIANA *Dougl.* Sugar pine.
P. MONOPHYLLA *T. & F.*
P. MONTICOLA *Dougl.*
P. MURICATA *Don.*
P. PARRYANA *Engelm.* Pinyon.
P. PONDEROSA *Dougl.*
P. SABINIANA *Dougl.* Digger pine.
P. TORREYANA *Parry.* Soledad pine.
P. TUBERCULATA *Gordon.*

PLATYSTEMON.

P. CALIFORNICUS *Benth.* A low annual, a span high, with delicate sulphur-yellow flowers, called Cream-cups by the children. Belongs to the Poppy family.

PROSOPIS.

P. JULIFLORA *DC.* The Mesquit tree of the desert regions, sometimes planted for hedges. The bean-like pods of this tree are useful for forage, and form an important article of food among some Indian tribes. Very sweet and nutritious.

P. PUBESCENS *Benth.* The Screw-bean. A smaller tree than the Mesquit, with curiously twisted pods.

PRUNUS.

P. ILICIFOLIA *Walp.* The Holly-leaf cherry. A beautiful dark evergreen shrub, yielding a pleasant edible fruit. Useful for hedges or ornamental planting.

PSEUDOTSUGA.

P. DOUGLASII *Carr.* The magnificent Douglas spruce, better known commercially, perhaps, as the Oregon pine. A gigantic tree, 200 to over 300 feet in height, and very beautiful.
Var. macrocarpa Engelm. A small form.

RHUS.

R. OVATA *Watson.* A handsome evergreen shrub, noted for its glossy foliage and graceful form. The small dark red berries make a cooling drink, pleasantly flavored, resembling lemonade, and the Indians formerly gathered sugar from this species. Thus it may be appropriately termed a Lemonade and Sugar Tree.

R. INTEGRIFOLIA *Nutt.* The dark evergreen foliage of this shrub or small tree, locally known as Mahogany, is very hand-

some, while the larger bright red berries, coated with a white waxy substance also make a refreshing and cooling drink. The Californians formerly gathered and dried the berries for this purpose.

ROMNEYA.

This large white-flowering perennial poppy, named in honor of Dr. T. Romney Robinson, a noted astronomer, is one of the stateliest of California's contributions to horticulture. It is quite a hardy shrub with us, requiring only a sheltered position to protect its flowers; in England it is classified as half-hardy. A rich loamy soil is most suitable to its needs. In early spring vigorous shoots start from the dormant roots, growing from six to fifteen feet high, which do not die down but need to be pruned well back in the fall. A single species.

R. COULTERI *Harvey*. This magnificent wax-like flower has become very popular wherever known. The large hairy buds open at daylight, the crimped petals slowly unfolding from over the huge bunch of bright yellow stamens (as large as a walnut), until they spread out from six to nine inches. The flowers last several days and the buds open well in water. The foliage is very effective and make with the flower an artistic study. Grown from either seed or cuttings with difficulty, but a well established root will well repay the attention bestowed upon it.

ROSA.

R. CALIFORNICA *C. & S.* The wild rose of California, with its large, single, lovely pink flowers, is as pretty as its more showy cultivated sisters, and equally admired by those who love the beauties of nature.

R. MINUTIFOLIA *Engelm.* Parry's wild Mexican rose, with its small, finely incised foliage, and small pink or white flowers that closely nestled among the leaves, met with a warm welcome when discovered in Lower California in 1882, but has steadily repulsed the kind advances of the gardener and refuses to long survive away from its native sky.

SALVIA.

S. CARDUACEA *Benth.* The Thistle-leaved sage, known to the Mexicans as *Chia*, is densely white-woolly, with prickly foliage, and showy lavender colored flowers, an inch long, in many-storied head-like whorls on a stem a foot or two high. Cultivated in Europe since 1854.

S. COLUMBARIÆ *Benth.* Smaller and less conspicuous. Also known as *Chia*. The seeds of either species infused in water form a pleasant mucilaginous drink; used largely by the aborigines medicinally or as a beverage.

SAMBUCUS.

S. GLAUCA *Nutt.* The California Elder forms a large bush or small tree and bears prolifically of its edible berries, prized by some for making pies or sauce.

SCHINUS.

S. MOLLE *L.* A graceful evergreen tree, a native of Mexico and South America, with glossy light green drooping leaves in twenty or more pairs of slender leaflets. The small white flowers in large panicles followed by lovely clusters of small red berries. The Pepper tree, as it is called, is very ornamental, and planted extensively for shade on avenues.

SEQUOIA.

A remarkable California genus, including the noted Redwood and Big-tree for which California is famous.

S. GIGANTEA *Deciasne.* This giant of the Californian woods, is the largest and tallest tree known to exist on the American continent, attaining a height exceeding 300 feet, only exceeded in size by some of the gums of Australia.

S. SEMPERVIRENS *Endl.* The California Redwood is the most valuable timber tree on the Pacific Coast, attaining a height of 200 to 300 feet, with light but strong and durable wood, susceptible to a handsome finish, of a walnut brown color.*

SIMMONDSIA.

S. CALIFORNICA *Nuttall.* A low, diffusely branched shrub, forming oval bushes one to five (rarely ten or fifteen) feet high with pale, rigid evergreen foliage, producing a pleasant edible nut. An ornamental shrub, growing in rich valleys or on arid hills from the Pacific Ocean to the borders of the Colorado Desert.

SISYRINCHIUM.

S. BELLUM *Watson.* The Blue-eyed grass bears umbel-like clusters of small rotate flowers of a delicate shade of mauve, with canary yellow centers. A profuse bloomer. Grows from a few inches to two feet high. A very pretty Iris-like plant.

TORREYA.

T. CALIFORNICA *Torr.* The Californian Nutmeg is a tree fifty to seventy-five feet high, with slender drooping branches often grown for ornamental planting.

UMBELLULARIA.

U. CALIFORNICA *Nutt.* The California Laurel is a handsome shrub or tree, ten to seventy feet high, with thick evergreen leaves, better known in cultivation as Oreodaphne Californica.

WASHINGTONIA.

W. FILIFERA *Wendland.* The Californian or Washington fan palm is too well-known to need description. It has become one of the most characteristic trees in Southern California and is a worthy memorial to the fame of the great Washington whose name it bears.

W. ROBUSTA *Wendland.* A robust variety (not specifically distinct?) said to be more easily grown. None of the characters which are said to distinguish these two palms appear to be constant.

YUCCA.

An American genus of a few species of handsome and conspicuous ornamental plants, well known in cultivation.

Y. BACCATA *Torrey.* The Wild Date, or Spanish Bayonet, is a stately plant, sometimes growing ten or more feet high, and producing a pyramidal panicle of fragrant waxy, pure white flowers, or often marked with purple. The large, sweet edible fruit is sometimes called wild bananas.

Y. BREVIFOLIA *Engelm* The Tree Yucca of the Mojave Desert.

Y. WHIPPLEI *Torrey.* The flowers borne in a large panicle on a scape five to twelve feet high. The rigid serrulate leaves surround the base of the stem in a dense cluster. The flowers are waxy-white or purple tinged. The plant dies after blooming, while the preceding species live year after year.

ZAUSCHNERIA.

Z. CALIFORNICA *Presl.* The flowers of this plant are one to two inches long and three quarters of an inch across, scarlet to scarlet vermilion, very showy, forty to fifty flowers on a stem. Plant two to five feet high, growing in large masses on dry hillsides, but more luxuriant near water, where it becomes a very conspicuous flower. A half shrubby perennial, sometimes called wild fuchsia.

ZIZYPHUS.

Z. PARRYI *Torrey.* A spiny shrub, with small flowers, producing an edible fruit of a dull brownish cadmium-yellow color, said to make excellent jelly like its near relative, the cultivated jujube.

ZYGADENUS.

Z. FREMONTI *Torrey.* A pretty plant, belonging to the lily family, with paniculate racemes of cream-colored flowers.

PRICE LIST

Special attention will be given in the future to our growing retail trade. Many varieties mentioned in our descriptive list of 'California Trees and Flowers,' we are at times unable to supply, but, on the other hand, we are continually introducing new and desirable trees and flowers to our novelty-loving friends. Descriptions of these, and supplementary notes on 'California Trees and Flowers' may be found monthly in *Science and Horticulture*.

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